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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,950	09/27/2001	Sanjiv M. Shah	42390P11914	2549

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EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT	PAPER NUMBER
2195	

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/964,950	<b>Applicant(s)</b> SHAH ET AL.	
	<b>Examiner</b> Lewis A. Bullock, Jr.	<b>Art Unit</b> 2195	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 10,12-16,18-22 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16,18-22 and 24 is/are rejected.
- 7) ☒ Claim(s) 10,12-16,18-22 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16, 18-22 and 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. M.P.E.P. 2106 states:

If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. *Schrader*, 22 F.3d at 294-95, 30 USPQ2d at 1458-59. Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process.

The specification details on page 7, paragraph 0024, that the machine-readable medium that corresponds to the machine-accessible medium, includes electrical, optical, acoustical, or other form of propagated signals. The abstract idea / manipulation of numbers is the determining of a task being undertaking by another thread based upon the comparing of the first private value with the second private value. Therefore, as proper under M.P.E.P. 2106, the signal representing a process that manipulates numbers, abstract concepts or ideas are not being applied to appropriate subject matter and therefore cannot constitute a statutory process.

In addition, claims that recite nothing by the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, per se, are non-statutory natural phenomena. Moreover, it does not appear that a claim reciting a

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signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in 35 U.S.C. 101.

First a claimed signal is not a "process" because it is not a series of steps. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and thus does not fit within the definition of a machine. A claimed signal is not matter, but a form of energy, and therefore is not a composition of matter that ordinary "covers all compositions of two or more substances and includes all composite articles, whether they be results of chemical union, or of mechanical mixture. And a signal is not a manufacture because it is a tangible physical article or object that is produced for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations. Therefore, the claims directed to a machine medium that includes signals are non-statutory as defined in claims 16, 18-22 and 24.

### ***Claim Objections***

2. Claims 10, 12-15, 16, 18-22 and 24 are objected to because of the following informalities: The claims are worded in a manner that provides confusion. Appropriate correction is required.

The cited claims are worded in a manner that provides confusion. See for instance "to determine if the task associated with the one instance has been undertaken **by another thread by a first thread** that when executed..." in claim 10.

Regarding claim 10, Applicant should correct the claim by removing “when executed” preceding “to determine...” and reword the “to determine” limitation with **“a first thread that when executed to determine if the task associated with the one instance has been undertaken by another thread by comparing a first private value of the first thread and a second private value of the first thread.”**

Regarding claim 13, Applicant states the code segment when executed to cause each of a plurality of threads: to determine...”. This should be reworded to **“the code segment when executed to cause each of a plurality of threads: to determine if the task has been undertaken by another thread by comparing a first private value of the thread with a second private value of the thread.”** Because each of the threads performs the determining and undertaking functionality there is no need for the claim to indicate a first thread. The thread performing the operation is the first thread.

Regarding claim 16, there is a potential antecedent basis problem regarding the “the one instance” as detailed in line 19. This indication should read “the most current instance”. In addition, the determining step should read as indicated above regarding claim 10.

Regarding claim 21, the claim should be similarly reword as detailed above regarding claim 10.

### ***Allowable Subject Matter***

3. The following is a statement of reasons for the indication of allowable subject matter: The cited claims all detail a thread determining if a task instance of a parallel

construct has been undertaken by another thread by comparing a threads first private value with a second private value of the thread and if the task has not been undertaken to undertake the task by indicating such in a shared value and a first private value.

None of the cited prior art of record, either previously cited or newly cited, disclosed this teaching. Newly cited reference 2002/0078125 A1 details determining if an instance of a parallel construct has been undertaking by a thread by comparing a first value to a shared value. The cited reference does not use a second private value to indicate whether a thread has undertaken an instance of a parallel construct. Therefore, the claims contain allowable subject matter over the cited prior art of record.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 20, 2005

  
**LEWIS A. BULLOCK, JR.**  
**PRIMARY EXAMINER**